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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/487,239	01/20/2000	Norikane Nabata	Q57646	2929

7590 06/09/2005

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2100 Pennsylvania Avenue N W
Washington, DC 20037

EXAMINER

VO. HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/487,239

Applicant(s)

NABATA ET AL.

Examiner

Hai Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The art rejections are maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dauber et al (US 5,538,545) in view of Takiguchi et al (US 5,804,074) substantially as set forth in the 11/04/2004 Office Action. The art rejections have been maintained for the following reasons. Applicants argue that it is improper for the examiner to ignore the teaching in Takiguchi that the two layers of the filter should be made of the same material. The examiner agrees. However, Applicants' attention is directed to the column 3, lines 35-45 of the Takiguchi reference. Takiguchi discloses a porous filter made of a thermoplastic material from which a porous body can be obtained by sintering such as polyethylene, e.g., ultrahigh molecular weight polyethylene (UHMWPE). It is clearly apparent that polyethylene and UHMWPE are equivalent thermoplastic materials from which a porous material of the plastic filter can be obtained by sintering. Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute UHMWPE for the polyethylene of the Dauber invention since two compounds have been shown in the art to recognized equivalent thermoplastic resins from which a porous material of the plastic filter can be obtained by sintering.

It is appreciated that Applicants have pointed out that the Dauber reference does not meet a pressure drop as disclosed in Applicants' specification. Applicants assert that such pressure drop is an overall unexpected result over the Dauber reference. The examiner disagrees. The pressure drop disclosed in Applicant's specification is an unexpected result over the conventional PTFE porous tube shown in a comparative example 1 of the present specification, but not the technical advantage over the cited Dauber reference. Therefore, the pressure drop limitations must be incorporated in the claims to provide any structural differences over the applied references. Similarly, the collection efficiency is not considered as an unexpected result over the applied references as argued by Applicants. It is recognized that Dauber discloses the collection efficiency at least of 55% at 0.3 μm . However, Dauber does not disclose the collection efficiency cannot go up to 100% at 0.3 μm . Therefore, it is technically erroneous to conclude that the Dauber reference fails to meet the collection efficiency not less than 99.99995% at 0.1 to 0.2 μm . Therefore, the burden is shifted to Applicants to establish that the substitution of UHMWPE for the PE is not obvious by providing unexpected results to show that the change in materials is responsible for the result alleged to be unexpected and not some unclaimed physical feature such as mean pore size, porosity, etc. To the examiner, the material substitution has nothing to do with the pressure drop as well as the collection efficiency of the container. However, the pore size and porosity of the individual layers are recognized as the key elements to determine the pressure drop and collection efficiency of the container. It is suggested the pore size, porosity

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and pressure drop would need to be incorporated into the claims to provide any basis for holding Applicants' current showing persuasive or for establishing a structural distinction over the prior art.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

Hai Vo

**HA VO
PRIMARY EXAMINER**